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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/484,781 01/18/00 DAEHN

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EXAMINER

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ART UNIT PAPER NUMBER

2819

DATE MAILED:

07/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	Application No. <b>09/484,781</b>	Applicant(s) <b>Daehn</b>
	Examiner <b>Don Le</b>	Art Unit <b>2819</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)  Responsive to communication(s) filed on Jan 18, 2000

2a)  This action is FINAL.      2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4)  Claim(s) 1-10 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-3 and 5-10 is/are rejected.

7)  Claim(s) 4 is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.

12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

15)  Notice of References Cited (PTO-892)      18)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16)  Notice of Draftsperson's Patent Drawing Review (PTO-948)      19)  Notice of Informal Patent Application (PTO-152)

17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4      20)  Other: \_\_\_\_\_

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***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki et al. (US 4,833,395).

3. With respect to claim 1, figure 1 of Sasaki discloses an integrated circuit, comprising:

at least one pad cell (16) to be monitored in one operating mode by a functional test, said at least one pad cell each having a connecting pad (30), an upstream output driver (29) and a connection for an input signal (TEST); and

a signal transmitter (12) for producing periodic signal sequences, said signal transmitter having a connection for a periodic output signal connected to said connection for an input signal of said at least pad cell to be tested, in order to test a transmission response of said at least one pad cell in said one operating mode.

4. With respect to claim 2, figure 1 of Sasaki discloses the signal transmitter is reprogrammable to produce different periodic signal sequences (see ABSTRACT).

5. With respect to claim 3, figure 2 of Sasaki discloses said connection of said signal transmitter (12) for an output signal is at least one connection, said at least one pad cell (30) is a plurality of pad cells to be tested, and said connections for an input signal of said plurality of pad

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cells are connected in parallel to said at least one connection of said signal transmitter for an output signal.

6. With respect to claim 5, figures 1 and 2 of Sasaki disclose said at least one pad cell to be tested is a plurality of pad cells, and multiplexer circuits (TG6, TG7) are each connected between said connection for an input signal (TEST) of a respective one of said pad cells and said connection of said signal transmitter for an output signal, to switch over between said one operating mode (input from 15) and another operating mode (input from 14).

7. With respect to claim 6, figures 1 and 2 of Sasaki disclose the circuit further include; another functional unit (14) having a connection for a signal; each of said multiplexer circuits (TG6, TG7 of each 16) having an output connected to said connection for an input signal of a respective one of said pad cells to be tested; each of said multiplexer circuits having one input connected to said connection of said signal transmitter for an output signal; each of said multiplexer circuits having another input to be connected to said connection for a signal of said other functional unit; the output of said from said signal transmitter being present at said output of said multiplexer circuits in said one operating mode; and the signal from said other functional unit being present at said output of said multiplexer circuits in said other operating mode.

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8. With respect to claim 7, figure 7 of Sasaki discloses the signal transmitter contains a clock-controlled bistable multivibrator of the T-flip-flop type (44).

9. With respect to claims 8-10, the methods therein are inherent given the apparatus of Sasaki as shown in the rejections above.

***Allowable Subject Matter***

10. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is an examiner's statement of reasons for allowance:

with respect to claim 4, in addition to other elements in the claim, the prior art does not teach an integrated circuit having shift register cells are each connected in series between a connection for an input signal of a respective one of a plurality of pad cells.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Prior Art***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Sonnek (US 4,973,904) discloses a test circuit having a buffer and a pad.

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- B. Whetsel (US 6,199,182) discloses a pad buffer with test features.
- C. Blum et al. (US 4,490,673) disclose a buffer with test features.
- D. Aoki et al. (US 5,994,922) discloses a buffer with test features.

*Conclusion*

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don Le, whose telephone number is (703) 308-4890. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)308-0956.



Don Le

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June 21, 2001